# CITY OF GREENBRIER – DAILY STORMWATER LOG

**In accordance with Ordinance 10-05 daily stormwater compliance inspections are required on all projects holding a Tennessee Discharge Permit System – Stormwater Construction Permit.**

**This form is to be used as the daily diary to evaluate BMPs used during construction activities.**

**See the instructions for more information.**

| Date begun: | Project number: | Sub-account number: |
|---|---|---|
| | | |

The entire site shall be inspected to determine whether BMPs are being implemented and maintained in accordance with the project's site specific SWMP and the CDPS-SCP. The Erosion Control Supervisor (ECS) or Superintendent shall identify if additional BMPs are needed, can be removed, or need maintenance. The **condition** of the currently used BMPs shall be recorded, using one or more of the following letters: (I) Incorrect Installation; (M) Maintenance is needed; (F) BMP failed to operate; (A) Additional BMP is needed; (R) Remove BMP. Only BMPs with the conditions above need be recorded. (Use the extra page at the end of this form if needed.)

The Project Engineer will approve and the Superintendent shall direct the work associated with any BMPs identified in this daily log to ensure compliance with the site specific SWMP and the CDPS-SCP.

**CDPS-SCP States: "BMPs that are not operating effectively, have proven to be inadequate, or have failed must be addressed as soon as possible, immediately in most cases."**

| Location | BMP Type | Condition | Notes/Comments | Date Completed & Initials |
|---|---|---|---|---|
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** ALL BMPS ARE IN OPERATING CONDITION AND NO MAINTENANCE IS NEEDED.
(initial the box to the right when this applies)

Comments/General notes:( attach photos if necessary)

**Inspection signature:**

| Superintendent or ECS Name:(Print) | Signature: | Date signed: |
|---|---|---|
| | | |

## Stormwater Management Field Daily Inspection Report Instructions

Inspect all erosion and sediment control BMPs throughout the entire construction site – observe, record, and determine their effectiveness. If additional BMPs are needed or any BMP is not operating effectively, it shall be recorded on this form and addressed immediately.

*Location:* Record the site location (e.g., project station number, mile marker, intersection quadrant, etc.).

*BMP Type:* Indicate the type of BMP at this location that requires attention (e.g., silt fence, erosion logs, soil retention blankets, etc.).

*Condition:* Identify the condition of the BMP, using one or more of the following letters: **(I)** Incorrect Installation, **(M)** Maintenance is needed (i.e., sediment needs to be removed), **(F)** BMP Failed to operate, **(A)** Additional BMP is needed, **(R)** Remove the BMP.

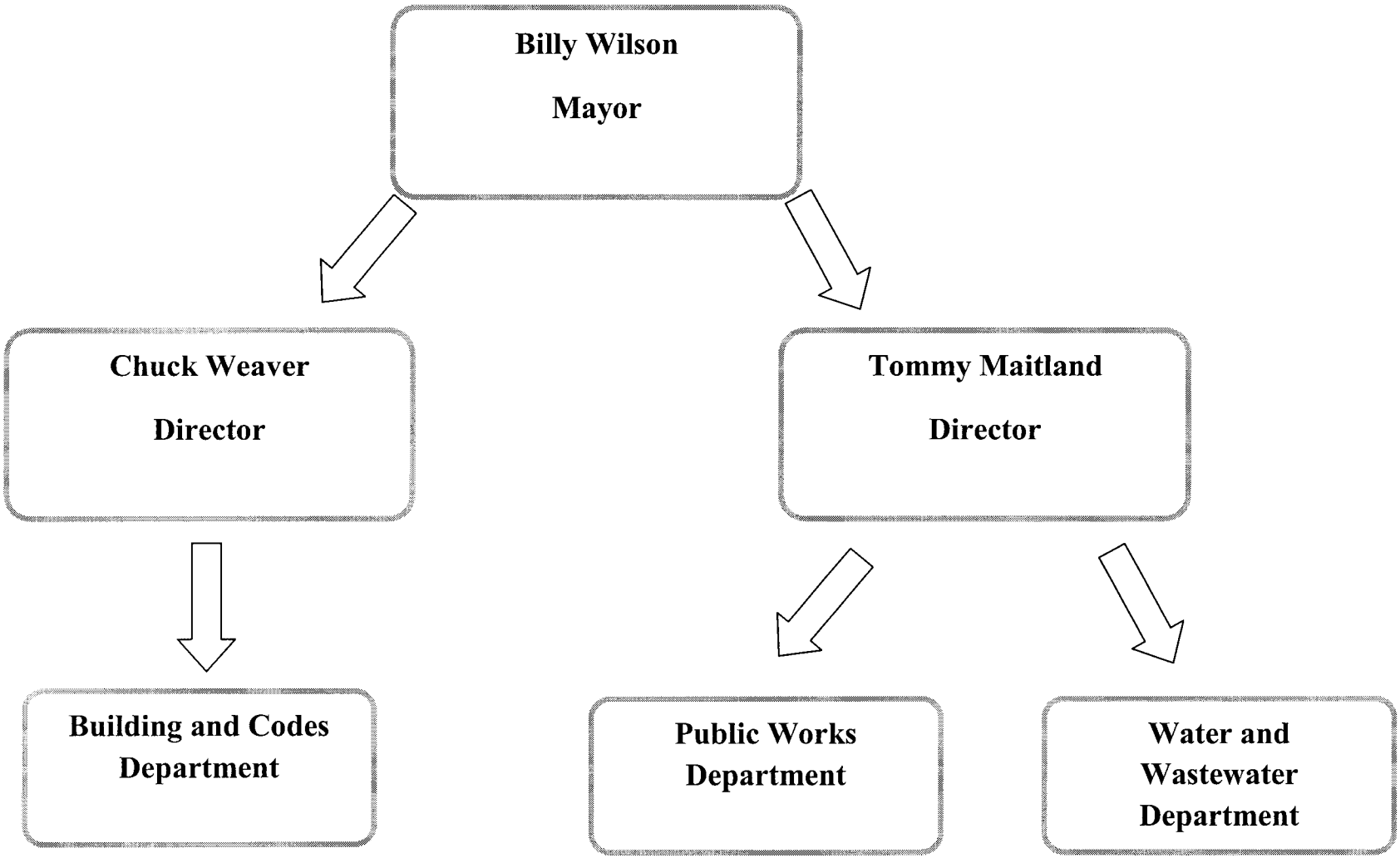
** If all BMPs are in operating condition and no BMP maintenance is needed, sign and initial the box to the right of the statement.

*Notes/Comments:* Provide the proposed corrective action needed to bring the area or BMP into compliance.

*Date Completed & Initials:* Date and initial when the corrective action was completed.

*Inspection Signature:* Sign the form when the inspection has been completed.

Place the completed daily stormwater log sheet(s) in the SWMP Notebook.


Billy Wilson
Mayor
Chuck Weaver
Director
Tommy Maitland
Director
Building and Codes Department
Public Works Department
Water and Wastewater Department

# *Pollution Prevention*

## A Guide to Yard Waste and Lawn Care

Lawn maintenance can make your house and yard more beautiful. But what we do to maintain our lawns can affect the environment around us.

When it rains, water flows off our yards, streets, and parking lots directly to our creeks and lakes without ever being cleaned. As it flows to storm drains, storm water can pick up anything in its path including things like oil, dirt, litter, pet waste and yard chemicals.

## Fertilizers

Fertilizers are essentially nutrients used by plants to live. Most fertilizers contain nitrogen, phosphorus, and potassium but can contain other elements as well.

Just like humans, plants can only use so much food. Fertilizer not used by the plant is available to mix with rain and becomes storm water pollution.

Nutrients from fertilizers, such as phosphorus and nitrogen, promote algae blooms and excessive plant growth. Algae depletes oxygen making it unavailable to fish and other aquatic life. Algae blooms and excessive plants limit much needed sunlight.

- Apply fertilizers exactly where you want them
- Improve the health of your soil by adding compost and using organic mulches
- Use fertilizers sparingly
- Leave grass clippings on your lawn as a natural fertilizer
- Store fertilizers in areas that are covered to avoid mixing them with rain

## Soil Testing

A soil test report gives you precise nutrient requirements for the soil type and plant type in your situation. Soil testing takes the guess-work out of lime and fertilizer purchases.

- Soil test your yard before applying lime or fertilizer

## Pesticides

When it comes to pest control, the best defense is a strong offense - building healthy soil, selecting appropriate plants, watering effectively, and using mulch. An ounce of prevention is better than a pound of pesticide.

- Apply pesticides exactly where you want them
- Consider physical controls such as barriers, traps or handpicking instead of pesticides

- Avoid spraying pesticides onto driveways or sidewalks
- Store pesticides in areas that are covered to avoid mixing them with rain
- Use pesticides sparingly
- Avoid chemical applications when rain is forecast
- Protect beneficial insects by avoiding broad-spectrum pesticides
- Read pesticides labels carefully
- Be sure to identify the pest plant or insect so as to purchase the correct product

## Yard Waste

Not only does yard waste cause blockages to the drainage system which leads to localized flooding, it can also quickly super-fertilize streams and lakes which leads to algae blooms and fish kills.

- Sweep up yard debris from streets and sidewalks instead of washing it away
- Blow leaves and grass clippings back into your yard instead of leaving them in the street to wash down the storm drain
- Never dump grass clippings and other yard waste into storm drains or on creek banks

## Erosion Control

Sediment is a major contributor to storm water pollution. Sediment adds suspended solids to water, clogging the gills of fish, blocking sunlight, and affecting photosynthesis of aquatic plants and phytoplankton. The best way to control erosion is with vegetation. The roots of plants hold soil particles in place. The larger the root system the less likely soil will erode.

- Replant bare areas to avoid soil erosion
- Direct down spouts away from paved surfaces
- Sweep up soil from paved surfaces instead of washing it away
- Keep areas adjacent to streams, lakes and ponds heavily vegetated with large root systems

**Fiction:** Organic fertilizers are not harmful to the environment.

**Fact:** All fertilizers have the potential to be harmful when improperly applied. Fertilizers are essentially nutrients that plants need to survive. Whether a fertilizer is organic or synthetic (chemical), if over-applied the excess nutrients can be transported in storm water runoff to nearby creeks and lakes. Organic fertilizers are much more sustainable sources of nutrients, but a soil test will help prescribe the proper amount of fertilizer that should be applied.

**Fiction:** Grass clippings aren't a problem because they are natural and can biodegrade.

**Fact:** As grass clippings and other organic material decompose, the chemical reaction uses available oxygen to produce carbon dioxide. Grass clippings and other organic materials, when introduced to creeks and lakes, remove oxygen from the water which suffocates fish and other aquatic animals. Grass clippings can be left on the lawn to biodegrade.

**Fiction:** My yard care habits can't possibly have that much impact on water quality.

**Fact:** Research shows that an average 1,000 square foot lawn can generate up to 500 pounds of grass clippings each year. Grass clippings are full of nutrients that have been applied as fertilizer. With more than a 7,000 people in our area, the cumulative impact of our community on the water quality of our creeks and lakes is quite large.

## Things To Discuss With Your Yard Care Service

If you use a professional yard care service, it is still up to you to make sure that your landscaper does not contribute to the storm water pollution problem. Here are some things to consider when using a yard care professional:

- Ask them to recycle grass (leave clippings on the lawn)
- Make sure they sweep up stray clippings and dispose of them properly instead of leaving them in the street
- Know which pesticides are being used, that they are only used when necessary and that they are not applied on a set schedule

# Animal Waste

Animal waste is raw sewage: Scoop it, bag it, and place it in the trash.

Greenbrier is home to many animals. They have the potential to produce hundreds of pounds animal waste every day.

*Roundworms*, *E. coli*, and *Giardia* are just a few of the many harmful micro-organisms that can be transmitted from pet waste to humans. Some can last in your yard for as long as four years if not cleaned up. Children who play outside and adults who garden are at greatest risk of infection.

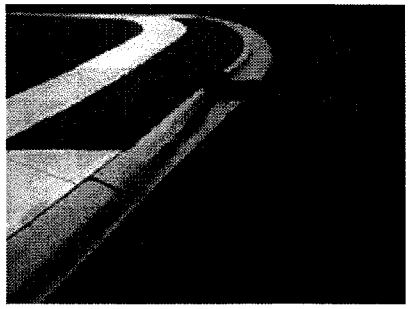
Animal waste is one of the causes of bacterial contamination of streams in Greenbrier.

The solution is safe and easy. **1) Scoop the poop, 2) put it in a plastic bag, 3) place it in the trash, and 4) wash your hands.**

Burial, composting, waste digesters, and letting it lay in yards contaminates water and jeopardizes human and pet heath. Flushing is impractical for most people. At some point in the future, commercial composting technology may be sufficient to treat animal waste. Until then, using the landfill is the best alternative for pet waste.

# Household Hazardous Waste

Anything that mixes with rain becomes storm water pollution. For that reason, it is important to dispose of household hazardous waste properly.



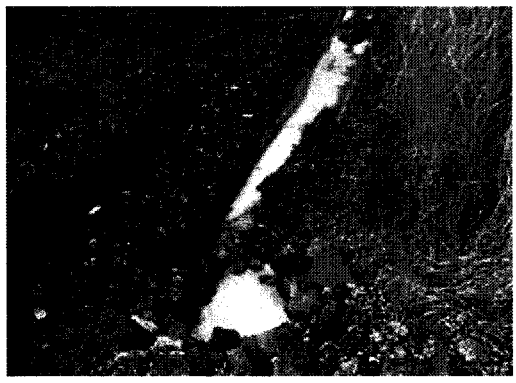
*Oil on streets washes into our storm drains, polluting our water and harming aquatic life*

**What is household hazardous waste (HHW)?**

HHW are chemicals used in homes that are corrosive, ignitable, toxic or reactive and can present a threat or unreasonable risk to people or the environment. These materials turn into HHW when they are no longer usable or wanted.

## What are some examples of Household Hazardous Waste?

- Used oil
- Antifreeze
- Bleach
- Turpentine
- Paint thinner
- Bug sprays/killers
- Paint
- Leftover pesticides and fertilizers
- Batteries
- Upholstery/rug cleaner
- Oven cleaners
- Drain openers
- Furniture polish



*Paint can turn toxic when it washes into a storm drain or stream*

Each year, people who change their own motor oil in the US dump more oil into the environment than the amount spilled by the worst oil tanker spill in US history. Just one gallon of oil will pollute one million gallons of water.

# Litter

Anything that gets in the path of a rain drop becomes storm water pollution. That includes litter.

Every year litter and other debris are removed from creeks in Greenbrier by volunteers of our community.

Never throw anything down storm drains or out of car windows.

Remember to keep truck loads covered to avoid accidental littering.

In April of each year, the City of Greenbrier has a clean up day. City residents can bring all their unwanted items to City Hall for proper disposal.

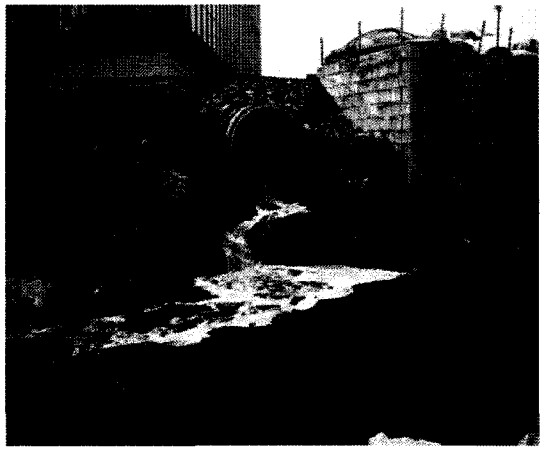
*Litter clogs the path of a small stream*

# What is storm water?

Storm water is rainwater, snow melt or even water from a garden hose that isn't absorbed into the soil.

It's not treated at a treatment plant.

Storm water runs off rooftops, down street curbs and across parking lots to storm drains. Storm water pipes empty directly into creeks and lakes. Whatever goes down storm drains ends up in our drinking water supply.



*Storm water flows out of pipes and directly into streams*

**Storm Water problems**

As a community grows, so do storm water problems. When there's too much storm water, it can cause flooding. A typical city block generates five times more runoff than a woodland area of the same size.

When the storm water picks up pollution as it flows, it contaminates our streams, rivers and lakes.

What Storm Water Services does:

- Reduces flood risks
- Improves water quality in our streams, rivers, lakes, and ponds

Effective storm water management involves:

- Engineering
- Science
- Land use planning
- Regulations
- Educating the public

# Where does water pollution come from?

Most water pollution is created from people doing everyday activities. As we drive our cars, take care of our homes and lawns, or work at our jobs, we may contribute to water pollution. Often without realizing it.

*Grass clippings can clog drainage pipes and can cause algae blooms and fish kills in our creeks.*

As storm water flows, it picks up bits of dirt, auto fluids, chemicals and grass clippings. Sometimes,people intentionally (and illegally) dump paint, used oil, leaves or other pollutants in storm drains.

This "non-point source" water pollution comes from yards, driveways, parking lots, rooftops, streets, even golf courses.

"Point source" pollution comes from a single source. Some examples include a factory or a sanitary sewage treatment facility discharging into a stream. Point source pollution could also come from a spill such as a tanker truck accident where fuel or other contaminants flow into the storm drain system.

Water that flows into the storm drains system is not treated or cleaned.

Storm water flows across lawns, streets and parking lots picking up contaminants. Because that runoff is never cleaned, the storm water can pollute our streams.

**What you can do**

- Don't use storm drains as a trash can.
- Put trash and cigarette butts in the trash.
- Don't apply fertilizers or pesticides before a heavy rain.
- Pour kitty litter or sand into unused pan and discard in trash.
- Take used motor oil to local approved used oil recycling centers.

**Only rain should go down the storm drain.**

# Yard Waste

## How can yard waste cause problems?

In the autumn, the leaves fall from the trees. In the summer, there are grass clippings from mowing the lawn. In spring, weeding the garden produces a lot of yard waste. In the winter, heavy snow and ice storms can bring down tree limbs.

## Do you know what to do with this yard waste?

There are ways to properly dispose of yard waste but dumping it down storm drains or in creeks is never an option. The City of Greenbrier offers curbside leaf and limb pick up in April and October of each year.

### Disposal Tip

*Use a compost bin to turn yard waste into a useful gardening product.